NEW COMBINATIONS IN THE SOLANEAE (SOLANACEAE) AND COMMENTS REGARDING THE TAXONOMIC STATUS OF *LEUCOPHYSALIS*[1]

JOHN E. AVERETT[2]

ABSTRACT

New combinations are made for four species previously included in *Chamaesaracha*.

During the course of a revisionary study of *Chamaesaracha*, several species were encountered that are better treated in other genera. With the removal of these species, *Chamaesaracha* becomes a natural, closely knit genus of seven species restricted to the desert regions of the southwestern United States and adjacent northern Mexico. New combinations for these species are as follows:

Saracha potosina (Rob. & Greenm.) Averett, *comb. nov.*

Chamaesaracha potosina Rob. & Greenm., Amer. Jour. Sci. 50: 161. 1895. [MEXICO. SAN LUIS POTOSI: Tamasopo Canyon, Nov. 1880, *Pringle 3654* (VT, holotype).]

The fruiting calyx of this species is rotate and expanding under the berry like that of other species of *Saracha* and unlike those of *Chamaesaracha*.

Physalis sinensis (Hemsl.) Averett, *comb. nov.*

Chamaesaracha sinensis Hemsl., Jour. Linn. Soc. Bot. 26: 174. 1890. [CHINA. Hupeh, *Henry 2902* (K, holotype, not seen; NY, isotype).]

This species has an inflated, ribbed fruiting calyx which encloses the berry and therefore belongs with *Physalis*.

Leucophysalis heterophylla (Hemsl.) Averett, *comb. nov.*

Chamaesaracha heterophylla Hemsl., Jour. Linn. Soc. Bot. 26: 176. 1890. [CHINA. Hupeh, *Henry 6207* (K, holotype, not seen; GH, NY, isotypes).]

This species is transferred to *Leucophysalis* on the basis of its floral and fruiting characters.

Leucophysalis nana (Gray) Averett, *comb. nov.*

Saracha nana Gray, Proc. Amer. Acad. Arts 10: 62. 1874. [CALIFORNIA. Sierra Nevadas, 1868–69, *Kellogg & Harford 719* (GH, hololectotype; US, isolectotype).]

Chamaesaracha nana (Gray) Gray, Bot. California 1: 540. 1876.

Although the fruiting calyx of this species does not always exceed the berry in length, it is transferred to *Leucophysalis*. Like *L. grandiflora* the berry is fleshy

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[2]Department of Biology, University of Missouri–St. Louis, St. Louis, Missouri 63121 and Missouri Botanical Garden.

and the placenta extends the entire length of the berry with seeds attached all along the placenta. In *Chamaesaracha* the berry is dry, and the placenta is mostly basal. The species of *Chamaesaracha* are extremely uniform in the placental character, and the differences exhibited by *L. grandiflora* are significant. In addition, flavonoid data (Averett & Mabry, 1970) suggest an affinity between *L. grandiflora* and *L. nana.* The flavonoid profiles of the two species are identical except for the absence of one compound from the complement in *L. nana.*

Some comment on *Leucophysalis* is in order since its taxonomic status may be somewhat confused. *Leucophysalis* was established as a monotypic genus by Rydberg (1896) to accommodate *L. grandiflora,* formerly included in *Physalis* by Hooker (1840), Fernald (1949: 82–83) compared *L. grandiflora* with certain Asian species of what he considered to be *Chamaesaracha,* and as a consequence transferred it to the latter genus. However, unbeknownst to Fernald, Makino (1914: 20–22) had removed the Japanese species from *Chamaesaracha* placing them in his newly established genus *Physaliastrum.* If the relationship Fernald suggested exists, and indeed, it may, the species in question still do not belong with *Chamaesaracha.* Rather, they should all be treated as *Leucophysalis.* Investigations are currently underway to bring additional evidence to bear on the question.

Literature cited

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